

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA

OYSTER OPTICS, LLC,

Plaintiff,

v.

CIENA CORPORATION,

Defendant.

Case No. 4:17-cv-05920-JSW

**ORDER RE TENTATIVE RULINGS  
AND QUESTIONS RE MARKMAN  
HEARING**

TO ALL PARTIES AND THEIR ATTORNEYS OF RECORD, PLEASE TAKE NOTICE  
OF THE FOLLOWING TENTATIVE RULING AND QUESTIONS FOR THE HEARING  
SCHEDULED ON JULY 23, 2020, AT 10:00 a.m.:

The Court has reviewed the parties' briefs and, thus, does not wish to hear the parties  
reargue matters addressed in those pleadings. If the parties intend to rely on legal authorities not  
cited in their briefs, they are ORDERED to notify the Court and opposing counsel of these  
authorities reasonably in advance of the hearing and to make copies available at the hearing. If the  
parties submit such additional authorities, they are ORDERED to submit the citations to the  
authorities only, without argument or additional briefing. *Cf.* N.D. Civil. Local Rule 7-3(d). The  
parties will be given the opportunity at oral argument to explain their reliance on such authority.  
The parties are further ORDERED to file their presentation slides no later than July 22, 2020, at  
10:00 a.m. The Court suggests that associates or of counsel attorneys who are working on this  
case be permitted to address some or all of the Court's questions contained herein.

The parties shall each have approximately 60 minutes to present their arguments on claim  
construction. The Court provides its tentative constructions of the disputed terms of U.S. Patent  
Nos. 7,630,327 ("327 Patent"), 8,374,511 ("511 Patent"), and 8,813,898 ("898 Patent").

A. “the optical signals” (*’327 Patent at Claims 1, 14, 25, 36*)

Oyster’s <sup>1</sup> Proposed Construction	Ciena’s <sup>2</sup> Proposed Construction
“the optical data signals received on the fiber input from the second optical fiber”	“transmitting optical signals” is the antecedent basis for “the optical signals”
	Otherwise, indefinite

The term “the optical signals” appears in claims 1, 14, 25, and 36 of the *’327 Patent*. It also appears—without dispute over claim construction—in claims 1 and 9 of the *’511 Patent*. The *’327 Patent* claims recite (1) a transmitter that transmits “optical signals for telecommunication” over a first optical fiber, (2) a receiver that receives data from a second optical fiber, and (3) an energy level detector coupled between the receiver and the second optical fiber input “to measure an energy level of *the optical signals*.”

The parties dispute whether “the optical signals” measured by the energy level detector refers to the transmitted optical signals, or the received. Oyster argues that only the “received” construction makes sense. In particular, Oyster points out that the energy level detector is coupled between the receiver and the second (receiving) fiber and that the invention would not work for telecommunication if the transmitted signal was routed back to the transceiver. As support, Oyster cites the prior construction of this term in *Oyster Optics, LLC v. Coriant Am. Inc.*, 2:16-cv-1302-JRG, 2017 WL 6026729 (E.D. Tex. Dec. 5, 2017).

Ciena responds that the only antecedent basis for “the optical signals” in the claims is the optical signal sent by the transmitter. Absent this antecedent basis, Ciena argues that the claims are indefinite. Moreover, during prosecution, the inventors made clear that the energy level detector “measure[s] an energy level of the *transmitted* optical signals.” The PTO relied on this statement in the prosecution to adopt Ciena’s construction in inter partes review (“IPR”).

The Court finds Oyster’s evidence based on the claims and specification persuasive, but considers whether the totality of the prosecution history mandates a different construction. The Court has the following questions:

<sup>1</sup> Plaintiff Oyster Optics, LLC (“Oyster”).

<sup>2</sup> Defendant Ciena Corporation (“Ciena”).

- (1) How does the remainder of the prosecution history inform the “optical signals” construction? In particular:
- a. Following the claim amendment that added the disputed limitation, the examiner rejected the claims over U.S. Patent No. 7,099,592 to Snawerdt. (May 11, 2009 Rejection.) Does Snawerdt describe measuring the energy of the transmitted optical signal or the received?
  - b. The ’511 Patent is a continuation of the ’327 Patent and has the same specification. The parties agree that the term “the optical signals” in the ’511 Patent refers to “the optical signal transmitted by the transmitter.” Does Oyster contend that these claims are inoperable or exclude preferred embodiments?
- (2) Claims 9 and 33 of the ’327 Patent describe the thresholds in the energy level detector “bound[ing] an acceptable energy range for the *received* light.” Can these claims be reconciled with Ciena’s construction?

The Court **tentatively** adopts the construction: “the optical data signals received on the fiber input from the second optical fiber.”

**B. “receiver”** (*’327 Patent at Claims 1, 14, 25, 36 & ’511 Patent at Claims 1, 9*)

Oyster’s Proposed Construction	Ciena’s Proposed Construction
’898 Patent: “receiver without a modulator”	“receiver without a modulator”
’327 and ’511 Patents: No construction necessary	

The term “receiver” appears in all independent claims of the ’327, ’511, and ’898 Patents. The term was previously construed in the ’898 Patent as “receiver without a modulator.” The parties now dispute whether the same construction should apply to the ’327 and ’511 Patents.

By way of background, the ’898 Patent is a continuation of the ’327 and ’511 Patents and stems from the same application. During prosecution of the ’898 Patent (which occurred after the ’327 and ’511 Patents issued), the inventors proposed—and the examiner rejected—claims that recited a “receiver having a demodulator.” The examiner found that the specification did not enable receivers with demodulators, and the inventors amended the claims to delete “having a

demodulator.” The court in the Texas litigation then construed “receiver” in the ’898 Patent to exclude receivers with demodulators, but gave the same term in the ’327 and ’511 Patents its plain and ordinary meaning. However, Ciena now argues that under the law, prosecution disclaimer in later-filed (child) applications should apply to patents that issued from the parent application. No case is directly on point.

The Court has the following questions:

- (1) In *Microsoft Corp. v. Multi-Tech Systems, Inc.*, 357 F.3d 1340, 1350 (Fed. Cir. 2004), the court distinguished between using the prosecution history of a later-filed application as relevant evidence for claim construction and finding estoppel based on statements in that history. Assuming that only the “relevance” standard applies, does the patentee’s acquiescence that the specification does not enable receivers with demodulators justify limiting the scope of the inventions?
- (2) Prosecution disclaimer has two traditional policy justifications: (1) protecting the public’s reliance on definitive statements in the prosecution history, and (2) ensuring that claims are not construed one way to obtain allowance and another way against accused infringers. *See Aylus Networks, Inc. v. Apple Inc.*, 856 F.3d 1353, 1359-60 (Fed. Cir. 2017). The second rationale does not apply to disclaimer arising from later-filed applications. Does the first rationale apply in this case?

The Court **tentatively** adopts the construction: “receiver without a demodulator” for the ’989 Patent. No construction in the ’397 and ’511 Patents.

**C. “receiver configured . . . to convert the second optical signal to output data” (’898 Patent at Claims 1, 14)**

Oyster’s Proposed Construction	Ciena’s Proposed Construction
“receiver” as “receiver without a demodulator”  Otherwise, no construction necessary	“a receiver that converts the second optical signal from optical to electronic form to recover the data carried by the second optical signal”

The term “receiver configured . . . to convert the second optical signal to output data” appears in claims 1 and 14 of the ’898 Patent.

The parties dispute whether the output data derived from the optical signal must be in electronic form. Ciena argues that the specification consistently describes converting optical signals to an electronic form of data. Ciena also contends that Oyster's descriptions of those embodiments in the IPR create prosecution disclaimer. Oyster argues the plain and ordinary meaning of this term is not limited to any form of data and that its IPR statement do not demonstrate disclaimer but merely describe the embodiments.

The Court has the following questions:

- (1) At the time of the '898 Patent invention, could optical signals be converted to something other than electronic form to derive data?

The Court **tentatively** adopts the construction: "receiver" as "receiver without a demodulator." Otherwise, no construction.

**D. "energy level detector including a threshold" / "energy level detector includes a plurality of thresholds" ('327 Patent at Claims 1, 14, 25; '898 Patent at Claims 1, 14)**

Oyster's Proposed Construction	Ciena's Proposed Construction
"an energy level detector" means "a device to measure optical power."	"a single energy level detector on a transceiver card and including a reference voltage for comparison to the energy level of [the optical signals / the second optical signal]"
Otherwise, no construction necessary	"a single energy level detector on a transceiver card and including reference voltages for comparison to the energy level of [the optical signals / the second optical signal]"

The term "energy level detector including a threshold" or "plurality of thresholds" appears in asserted claims 1, 14, and 25 and unasserted claims 6-11, 19-22, and 30-33 of the '327 Patent, as well as asserted claims 1 and 14 and unasserted claims 6-11 and 20-23 of the '898 Patent.

Ciena identifies three issues for this claim term: (1) whether a single energy level detector must contain the thresholds, (2) whether the energy level detector must be on the transceiver card, and (3) whether the thresholds must be implemented as reference voltages for comparison to the energy level of the optical signals. For the first dispute, Ciena contends that Oyster repeatedly argued during the IPRs that a plurality of energy level detectors each having a single threshold

does not satisfy this limitation and that it therefore disclaimed multiple energy level detectors from satisfying this limitation. However, in reply, Oyster does not argue otherwise. Instead, Oyster contends that Ciena's construction improperly limits the transceiver to having a single energy level detector on a transceiver, even though the claims use the open-ended "comprising." Oyster appears to argue that even if only a single energy level detector satisfies this limitation, the transceiver may still have other energy level detectors.

For the second issue, the parties appear to agree. For the third issue, Ciena argues that the specification consistently describes implementing thresholds using reference voltages (e.g., Fig. 3), and shows that Oyster relied on the same portions of the specification in the IPRs. Oyster denies making any disclaiming statements and argues in favor of the ordinary meaning.

The Court has the following questions:

- (1) Do the parties have a genuine dispute on the first and second issues? Does Ciena contend that the transceiver cannot have more than one energy level detector? Does Oyster contend that the claimed thresholds may be located on different energy level detectors?
- (2) At the time of the '327 and '898 Patent inventions, could energy thresholds in a transceiver be implemented using something other than reference voltages?

The Court **tentatively** adopts the construction: "a single energy level detector on a transceiver card including a threshold / a plurality of thresholds," with the clarification that the transceiver may have additional (unclaimed) energy level detectors.

**E. "phase modulate" / "phase modulator"** (*'327 Patent at Claims 3, 16, 27, 37; '511 Patent at Claim 9; '898 Patent at Claims 3, 17*)

Oyster's Proposed Construction	Ciena's Proposed Construction
"alter the phase of light to create an optical signal having a phase that is representative of data. Use of phase modulation excludes use of amplitude modulation."	"alter the phase of light while keeping the amplitude of the light constant to create an optical signal having a phase that is representative of data."

The term "phase modulate" or "modulator" appears in asserted claims 3, 16, 27, and 37 of the '327 Patent, as well as claim 9 of the '511 Patent and claims 3 and 17 of the '898 Patent.

The parties dispute whether the amplitude may change during phase modulation. As the parties appear to agree, phase modulation does not itself use amplitude changes to convey data. However, Oyster points to extrinsic evidence from previous litigation that shows that amplitude changes may happen inadvertently or as a side effect of phase modulation. Judge Gilstrap in the Texas litigation found this evidence convincing and concluded that Ciena's construction would exclude most modern phase modulators. Ciena, on the other hand, argues that the specification expressly states that the "present invention" uses phase modulated signals that have the advantage "that breach detection by the energy level detector work more effectively, since the amplitude of the optical signal is constant and thus a drop in the optical signal level is more easily detected." ('898 Patent at 4:46-50.) In other words, because amplitude and energy levels are linked, phase modulation allows for easier detection of energy level changes where amplitude does not fluctuate as a function of data.

The Court has the following questions:

- (1) The parties appear to agree that amplitude modulation is not part of phase modulation. But Oyster argues that Ciena's construction improperly excludes amplitude modulation. Is that not the case for Oyster's construction as well?
- (2) Ciena's construction goes beyond requiring phase modulation to not alter amplitude to require that it actively keep the amplitude constant. Is that the ordinary understanding of phase modulators? Did phase modulators at the time of the invention actively stabilize amplitude? If not, would a construction that phase modulators "alter the phase of light without altering amplitude" (or without "intentionally" altering amplitude) better capture Ciena's meaning?
- (3) Is there a magnitude issue here? In other words, does the amplitude change that occurs during phase modulation fall below some threshold, such that amplitude is still "substantially" constant, compared to amplitude modification?
- (4) What does the "patented secure phase modulated format" in Exhibit M (Oyster's white paper) refer to? Is there another patent that covers the modulation format?
- (5) How common were "continuous phase modulation" and other techniques that phase



modulated signals while keeping the amplitude constant at the time of the inventions of the asserted patents?

The Court **tentatively** adopts the construction: “alter the phase of light without intentionally altering amplitude to create an optical signal having a phase that is representative of data.”

**F. “a transmitter having a laser, a modulator, and a controller”** (*'327 Patent at Claims 1, 14, 25, 36; '898 Patent at Claims 1, 14*)

Oyster's Proposed Construction	Ciena's Proposed Construction
No construction necessary: “a transmitter having a laser, a modulator, and a controller.”	“a transmitter having a laser, modulator, and a controller located within the transmitter.”

The term “a transmitter having a laser, a modulator, and a controller” appears in claims 1, 14, 25, and 36 of the '327 Patent, as well as claims 1 and 14 of the '898 Patent.

The parties dispute whether the laser, modulator, and controller must be located on the transmitter. Ciena contends that the plain meaning of “having” and the specification confirm that they are. In particular, the specification describes providing a “swappable” transceiver card, which would not be possible if some components were located outside of the card. Ciena also shows that Oyster argued during IPRs that a laser source must be located within the transmitter for that transmitter to “have” the laser. Oyster responds that the ordinary meaning of “having” includes “holding, including, or containing as a part or whole” and that Oyster had distinguished the prior art on other bases during the IPRs.

The Court has the following questions:

- (3) Is there a substantive difference between a transmitter “holding, including, or containing” the laser, modulator, and controller, and those elements being located within the transmitter?

The Court **tentatively** adopts the construction: “a transmitter containing a laser, a modulator, and a controller.”

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**IT IS SO ORDERED.**

Dated: July 9, 2020

A handwritten signature in black ink, reading "Jeffrey S. White", written over a horizontal line.

JEFFREY S. WHITE  
United States District Judge

United States District Court  
Northern District of California

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